

REMARKS

Independent Claims 1, 20, and 22 has been amended to advance prosecution by more specifically claiming the invention. In particular, Claims 1, 20 and 22 have been amended to expressly recite that when said substrate is subjected to a compression force perpendicular to the surface of said substrate, said walls of said micropockets collapse and close, thereby preventing release of said substance.

Upon entry of these amendments, Claims 1 –23 remain in the case. No additional claims fee is due.

Attached hereto is a marked-up version of the changes made to Claims 1-20 and 22 by the current amendment. The attached pages are captioned “Version With Markings To Show Changes Made”.

REJECTIONS UNDER 35 U.S.C. §112

In the Office Action of March 12, 2003, the Examiner rejected Claims 2-19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner states that Claims 2-19 are incomplete for omitting essential elements, the omitted elements being “the wipe article”. Applicants have amended Claim 2-19 herein to include the previously omitted element “the wipe article”

In addition the Examiner objected to use of the terms “analgesic agents”, “suncare agents”, and “antiperspirants” in Claim 16 and the term “substance” in Claim 18. Applicants have amended Claims 16 and 18 herein to exclude the objected to terms therefrom.

In light of the above amendments to Claims 2-19, the rejections of Claims 2-19 under 35 U.S.C. §112 should no longer be applicable and it is respectfully requested that they be withdrawn.

ART REJECTIONS

Claims 1, 2, 5-7, 14-16, 18, 20 and 22 have been rejected under 35 U.S.C. §102(b) as being anticipated by US Patent No. 5,871,607. Applicants respectfully submit that in light of the above amendments to independent Claims 1, 20 and 22, and the following arguments, the above identified reference would not anticipate and/or lead one skilled in the art to the invention set forth in the claims.

The Examiner states that “US ‘607 disclosed a substance delivery system to deliver substance to a target surface when it is deformed (abstract; col. 4, lines 46-54); such system comprises a deformable material (substrate) that holds substance in depressions and/or valleys (abstract; col. 4, lines 22-35). The above structure is used in lotion impregnated facial tissue, scented strips containing perfumes, medicinal patches, and condiment delivery to a surface (col. 18, lines 22-27).” However, the claims of the present invention recite a structurally different substance delivery system (wipe article) than that disclosed in US ‘607. Furthermore, the mode of deformation to deliver substances claimed herein is different than that in US ‘607. The following identifies the key differences between US ‘607 and the claims of the present invention:

(i) Structural Differences:

The height of the depressions disclosed in US ‘607 is from 0.01 cm to 0.03 cm, i.e., 0.1 mm to 0.3 mm (col. 9, lines 17-18). The width of the depressions (that will be the base diameter as defined in Fig. 17 of US ‘607 and disclosed in col. 15, lines 51-53 is from 0.038 cm to 0.076 cm, i.e., 0.38 mm to 0.76 mm. [Note, the Examiner has incorrectly used instead of center-to-center spacing to calculate the width of the depressions instead of the correct base diameter figure]. The ratio of height (depth) to width will be from 0.26:1 till 0.39:1. Furthermore, US ‘607 discloses that a preferred width (base diameter) to height (depth) ratio of protrusions is at least 2:1, i.e., inversely, depth to width ratio of at most 1:2 (col. 15, lines 53-55).

US ‘607 also discloses that protrusion (depression) shape discourages the protrusions from folding over in a direction parallel to a plane of material (col. 8, lines 59-62) and a preferred width-to-depth ratio of at least 2:1 (inversely depth-to-width less than 1:2) will prevent fold over (col. 15, lines 53-55). Whereas, the micropocket shapes of the present invention will fold over in a direction parallel to the plane of material under the preferred deformation disclosed in US ‘607 (i.e., compression perpendicular to the plane of substrate), as shown in Figs. 6 (a) to (c) and described on page 6, lines 27-29 of the present invention. Furthermore, the present invention claims micropockets having a depth-to-width ratio of at least (greater than) 1:2 (Claim 1) and between 0.7:1 and 2.8:1 (Claim 2). Thus, contrary to the Examiner’s assertion, the depth-to-width ratio of the ‘607 Patent does not read on the instant claims.

Differences in Deformation Mode to Deliver Substances:

As disclosed US ‘607, the substance contained in the three dimensional protrusions is released to the target surface and delivered only after the structure is sufficiently deformed into a substantially two-dimensional structure by inverting and/or crushing or decreasing in height of protrusions along an axis which is substantially perpendicular to the plane of material (abstract;

col. 5, lines 7-12; col. 8, lines 55-59; col. 15, lines 44-46; col. 17, lines 43-61; col. 18, lines 13-16). In comparison, in the present invention the substance is delivered from micropockets to the target surface under the action of shear forces substantially parallel to the plane of the substrate such that shear forces cause the walls of micropockets to substantially deform and release the substance to the target surface, i.e., without the substrate becoming substantially two-dimensional (see e.g., Figs. 5 (a) to (d); page 6, lines 19-25). Furthermore, the compression force substantially perpendicular the substrate (preferred deformation mode disclosed in US '607) causes the micropockets of the present invention to fold over and close the micropockets preventing the release of the substance to the target surface (Figs. 6 (a) to (c); Page 6, lines 27-29).

As per the reference, "PHYSICAL TESTING OF TEXTILES" by B. P. Saville, the technical definition of the shear force acting on a substantially planar substrate is a combination of an extension force acting along one diagonal in the plane of the substrate and a corresponding compression force acting along the other diagonal in the plane of the substrate (not perpendicular to the substrate). While a combination of tensile force in the plane of substrate and a compression force perpendicular to the plane of substrate is disclosed in US '607 to cause the depressions to deform in a direction substantially perpendicular to the plane of the substrate and expose the substance to the target surface (col. 5, lines 25-30), such mode of deformation is substantially different from the deformation mode due to shear forces disclosed in the present invention (page 6, lines 20-25) in view of the above-mentioned reference. Therefore, US '607 does not teach how the micropockets of the present invention will deliver the substances to the target surface upon contact.

In a sincere effort to expedite prosecution of the present invention, Applicants have expressly amended independent Claims 1, 20, and 22 to recite that when the substrate is subjected to a compression force perpendicular to the surface of the substrate, the walls of the micropockets will collapse and close, thereby preventing release of said substance. Clearly, the wipe article comprising a substrate with micropockets as recited in the amended claims is structurally different and also delivers substances by a different mode of deformation than the substrate disclosed in US '607.

Based on the foregoing, Applicants respectfully submit that Claims 1, 2, 5-7, 14-16, 18, 20 and 22 are not anticipated and/or obvious over US '607 and respectfully requests that the Examiner's rejections under 35 U.S.C. §102(b) be withdrawn.

Next, Claims 1-3, 5-16, and 18 have been rejected under 35 U.S.C. §102(e)(1) as being anticipated by PGPUB 2002/0102392. Applicants respectfully submit that in light of the above

amendments to Claim 1 and the following arguments, the above identified reference would not anticipate and/or lead one skilled in the art to the invention set forth in the claims.

PGPUB '392 relates to a flexible laminate structure that is formed from a first substrate, second substrate, and discrete regions of a functional material sandwiched therebetween. In particular, the first and second substrates contain thermoplastic polymers that are fused together at certain portions such that fused portions and unfused portions are formed. The unfused portions form pockets that contain the functional material (e.g., superabsorbents) and are relatively small in size.

The Examiner states that "subjecting the substrate to shear force(s) that deform the wall of the pockets and release the functional substance is an intended use and not patentably distinct in product claims." Applicant respectfully disagree with the Examiner's assertion that subjecting the substrate to shear forces that deform the wall of the pockets and release the functional substance is an "intended use". There is nothing in PGPUB '392 teaching or suggesting that the functional substance contained in the pockets is intended to be released therefrom upon application of a shear force. In fact, the pockets contain functional materials such as superabsorbents that one would not want to be released onto a baby's skin. Instead, the superabsorbent materials stay confined in the pockets of the absorbent article where they act to absorb urine after the urine flows through the first or second substrate and into the pockets. Clearly the fused portions of the first and second substrates in PGPUB '392 are not intended to separate or become "unfused" upon application of a shear force. Thus, there will be no openings in the pockets that would enable the functional materials to be released upon application of a shear force as in Applicants' invention.

Based on the foregoing, Applicants respectfully submit that Claims 1-3, 5-16, and 18 are not anticipated and/or obvious over PGPUB '392 and respectfully requests that the Examiner's rejections under 35 U.S.C. §102(e)(1) be withdrawn.

Next, Claims 1-16, 18, and 23 have been rejected under 35 U.S.C. §102(e)(2) as being anticipated by US Patent No. 6,429,350. Applicants respectfully submit that in light of the above amendments to independent Claim 1 and the following arguments, the above identified reference would not anticipate and/or lead one skilled in the art to the invention set forth in the claims.

US '350 relates to an absorbent article including a liquid permeable top layer, an inner surge layer, and a substantially liquid-impermeable outer cover. A plurality of pockets are formed

in at least one of the surge layer and the outer cover material. The pockets contain superabsorbent material.

The Examiner states that “subjecting the substrate to shear force(s) that deform the wall of the pockets and release the functional substance is an intended use and not patentably distinct in product claims.” Applicant’ respectfully disagree with the Examiner’s assertion that subjecting the substrate to shear forces that deform the wall of the pockets and release the functional substance is an “intended use”. There is nothing in US ‘350 teaching or suggesting that the functional substance contained in the pockets is intended to be released therefrom upon application of a shear force. In fact, the pockets contain functional materials such as superabsorbents that one would not want to be released onto a baby’s skin. Instead, the superabsorbent materials stay confined in the pockets of the absorbent article where they act to absorb urine after the urine flows through the first or second substrate and into the pockets. Clearly the pockets containing suberabsorbent materials in US ‘350 are not intended to open upon application of a shear force. Thus, there will be no openings in the pockets that would enable the functional materials to be released upon application of a shear force as in Applicants’ invention.

Based on the foregoing, Applicants respectfully submit that Claims 1-16, 18, and 23, are not anticipated and/or obvious over US ‘350 and respectfully requests that the Examiner’s rejections under 35 U.S.C. §102(e)(2) be withdrawn.

Next, Claims 17 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over any of US ‘607, or PG PUB ‘392 in view of US 6,063,397. Applicants respectfully submit that in light of the above amendments to independent Claim 1 and the following arguments, the above identified references would not have led one skilled in the art to the invention as set forth in Claims 17 and 19.

The Examiner states that “US ‘607 disclosed a substance delivery system to deliver substance to a target surface when it is deformed (abstract; col. 4, lines 46-54); such system comprises a deformable material (substrate) that holds substance in depressions and/or valleys (abstract; col. 4, lines 22-35). The above structure is used in lotion impregnated facial tissue, scented strips containing perfumes, medicinal patches, and condiment delivery to a surface (col. 18, lines 22-27).” However, the claims of the present invention recite a structurally different substance delivery system (wipe article) than that disclosed in US ‘607. Furthermore, the mode of deformation to deliver substances claimed herein is different than that in US ‘607. The following identifies the key differences between US ‘607 and the claims of the present invention:

(ii) Structural Differences:

The height of the depressions disclosed in US '607 is from 0.01 cm to 0.03 cm, i.e., 0.1 mm to 0.3 mm (col. 9, lines 17-18). The width of the depressions (that will be the base diameter as defined in Fig. 17 of US '607 and disclosed in col. 15, lines 51-53 is from 0.038 cm to 0.076 cm, i.e., 0.38 mm to 0.76 mm. [Note, the Examiner has incorrectly used instead of center-to-center spacing to calculate the width of the depressions instead of the correct base diameter figure]. The ratio of height (depth) to width will be from 0.26:1 till 0.39:1. Furthermore, US '607 discloses that a preferred width (base diameter) to height (depth) ratio of protrusions is at least 2:1, i.e., inversely, depth to width ratio of at most 1:2 (col. 15, lines 53-55).

US '607 also discloses that protrusion (depression) shape discourages the protrusions from folding over in a direction parallel to a plane of material (col. 8, lines 59-62) and a preferred width-to-depth ratio of at least 2:1 (inversely depth-to-width less than 1:2) will prevent fold over (col. 15, lines 53-55). Whereas, the micropocket shapes of the present invention will fold over in a direction parallel to the plane of material under the preferred deformation disclosed in US '607 (i.e., compression perpendicular to the plane of substrate), as shown in Figs. 6 (a) to (c) and described on page 6, lines 27-29 of the present invention. Furthermore, the present invention claims micropockets having a depth-to-width ratio of at least (greater than) 1:2 (Claim 1) and between 0.7:1 and 2.8:1 (Claim 2). Thus, contrary to the Examiner's assertion, the depth-to-width ratio of the '607 Patent does not read on the instant claims.

Differences in Deformation Mode to Deliver Substances:

As disclosed US '607, the substance contained in the three dimensional protrusions is released to the target surface and delivered only after the structure is sufficiently deformed into a substantially two-dimensional structure by inverting and/or crushing or decreasing in height of protrusions along an axis which is substantially perpendicular to the plane of material (abstract; col. 5, lines 7-12; col. 8, lines 55-59; col. 15, lines 44-46; col. 17, lines 43-61; col. 18, lines 13-16). In comparison, in the present invention the substance is delivered from micropockets to the target surface under the action of shear forces substantially parallel to the plane of the substrate such that shear forces cause the walls of micropockets to substantially deform and release the substance to the target surface, i.e., without the substrate becoming substantially two-dimensional (see e.g., Figs. 5 (a) to (d); page 6, lines 19-25). Furthermore, the compression force substantially perpendicular the substrate (preferred deformation mode disclosed in US '607) causes the micropockets of the present invention to fold over and close the micropockets preventing the release of the substance to the target surface (Figs. 6 (a) to (c); Page 6, lines 27-29).

As per the reference, "PHYSICAL TESTING OF TEXTILES" by B. P. Saville, the technical definition of the shear force acting on a substantially planar substrate is a combination of an extension force acting along one diagonal in the plane of the substrate and a corresponding compression force acting along the other diagonal in the plane of the substrate (not perpendicular to the substrate). While a combination of tensile force in the plane of substrate and a compression force perpendicular to the plane of substrate is disclosed in US '607 to cause the depressions to deform in a direction substantially perpendicular to the plane of the substrate and expose the substance to the target surface (col. 5, lines 25-30), such mode of deformation is substantially different from the deformation mode due to shear forces disclosed in the present invention (page 6, lines 20-25) in view of the above-mentioned reference. Therefore, US '607 does not teach how the micropockets of the present invention will deliver the substances to the target surface upon contact.

In a sincere effort to expedite prosecution of the present invention, Applicants have expressly amended independent Claims 1, 20, and 22 to recite that when the substrate is subjected to a compression force perpendicular to the surface of the substrate, the walls of the micropockets will collapse and close, thereby preventing release of said substance. Clearly, the wipe article comprising a substrate with micropockets as recited in the amended claims is structurally different and also delivers substances by a different mode of deformation than the substrate disclosed in US '607.

PGPUB '392 relates to a flexible laminate structure that is formed from a first substrate, second substrate, and discrete regions of a functional material sandwiched therebetween. In particular, the first and second substrates contain thermoplastic polymers that are fused together at certain portions such that fused portions and unfused portions are formed. The unfused portions form pockets that contain the functional material (e.g., superabsorbents) and are relatively small in size.

The Examiner states that "subjecting the substrate to shear force(s) that deform the wall of the pockets and release the functional substance is an intended use and not patentably distinct in product claims." Applicant respectfully disagree with the Examiner's assertion that subjecting the substrate to shear forces that deform the wall of the pockets and release the functional substance is an "intended use". There is nothing in PGPUB '392 teaching or suggesting that the functional substance contained in the pockets is intended to be released therefrom upon application of a shear force. In fact, the pockets contain functional materials such as superabsorbents that one would not want to be released onto a baby's skin. Instead, the

superabsorbent materials stay confined in the pockets of the absorbent article where they act to absorb urine after the urine flows through the first or second substrate and into the pockets. Clearly the fused portions of the first and second substrates in PGPUB '392 are not intended to separate or become "unfused" upon application of a shear force. Thus, there will be no openings in the pockets that would enable the functional materials to be released upon application of a shear force as in Applicants' invention.

US '397 relates to a substantially dry, disposable, personal cleansing product useful for both cleansing and conditioning the skin or hair. These products are used by the consumer by wetting the dry product with water. The product is comprised of a water insoluble substrate, a lathering surfactant, and a conditioner component. The Examiner notes that US '397 discloses the use of a cleansing agent, conditioning agent, and/or anti-wrinkle agents in a dry personal cleansing product. Applicants' acknowledge that the use of cleansing agents, conditioning agents and/or anti-wrinkle agents are known in the art. However, there is nothing in the prior art teaching or suggesting the use of these functional materials in a wipe article containing the specific type of micropockets claimed herein. In fact, as the Examiner is aware, the substrate in US '397 does not have any micropockets at all, let alone the specific type of micropockets claimed herein.

The Examiner goes on to state that it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the functional substance in the pockets of the article disclosed by US '607 or PGPUB '392, by the cleansing agent, conditioning agent, and/or anti-wrinkle agents applied by the substrate of US '397". Applicants respectfully disagree. First of all, as discussed in detail above, neither US '607 nor PGPUB '392 teach or suggest a wipe article comprising a substrate with micropockets as recited in amended Claim 1. Whereas, the substrate in US '397 does not have any micropockets at all, let alone the specific type of micropockets claimed herein. Thus even if one were to combine the teachings of US '397 with the absorbent articles disclosed in US '607 or PGPUB '392 as the Examiner suggests, the combination would fall short of Applicants' claimed invention.

Based on the foregoing, Applicants respectfully submit that Claims 17 and 19 are not obvious over any of US '607, or PGPUB '392 in view of US '397 and respectfully request that the Examiner's rejections under 35 U.S.C. §103(a) be withdrawn.

Next, Claim 19 has been rejected under 35 U.S.C. 103(a) as being unpatentable over US '350 in view of US 6,280,757. Applicants respectfully submit that in light of the above

amendments to independent Claim 1 and the following arguments, the above identified references would not have led one skilled in the art to the invention as set forth in Claim 19.

US '350 relates to an absorbent article including a liquid permeable top layer, an inner surge layer, and a substantially liquid-impermeable outer cover. A plurality of pockets are formed in at least one of the surge layer and the outer cover material. The pockets contain superabsorbent material.

The Examiner states that "subjecting the substrate to shear force(s) that deform the wall of the pockets and release the functional substance is an intended use and not patentably distinct in product claims." Applicant respectfully disagree with the Examiner's assertion that subjecting the substrate to shear forces that deform the wall of the pockets and release the functional substance is an "intended use". There is nothing in US '350 teaching or suggesting that the functional substance contained in the pockets is intended to be released therefrom upon application of a shear force. In fact, the pockets contain functional materials such as superabsorbents that one would not want to be released onto a baby's skin. Instead, the superabsorbent materials stay confined in the pockets of the absorbent article where they act to absorb urine after the urine flows through the first or second substrate and into the pockets. Clearly the pockets containing superabsorbent materials in US '350 are not intended to open upon application of a shear force. Thus, there will be no openings in the pockets that would enable the functional materials to be released upon application of a shear force as in Applicants' invention.

US '757 relates to disposable, personable cleansing articles useful for cleansing the skin or hair. These articles are used by the consumer by wetting the dry article with water and then rubbing the article against the skin or hair. The article comprises a water soluble substrate having a cleansing surface that contains apertures of a certain size and frequency, and a lathering surfactant releasably associated with the substrate. The Examiner notes that US '757 discloses the use of a cleansing agent in one layer and a conditioner in another. Applicants acknowledge that the use of cleansing agent and conditioning agents are known in the art. However, there is nothing in the prior art teaching or suggesting the use of these functional materials in a wipe article containing the specific type of micropockets claimed herein.

The Examiner goes on to state that it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the functional substance in the pockets of the article disclosed by US '350, to deliver cleansing agents and conditioning agent in different layers as taught by US '757. Applicants respectfully disagree. As discussed in detail above, US '350 does not teach or suggest a wipe article comprising a substrate with micropockets as recited in

amended Claim 1. Thus even if one were to combine the teachings of US '757 with the absorbent articles disclosed in US '350 as the Examiner suggests, the combination would fall short of Applicants' claimed invention.

Based on the foregoing, Applicants respectfully submit that Claim 19 is not obvious over US '350 in view of US '757 and respectfully request that the Examiner's rejections under 35 U.S.C. §103(a) be withdrawn.

Finally, Claim 21 has been rejected under 35 U.S.C. 103(a) as being unpatentable over US '607 in view of PGPUB 2002/0092199. Applicants respectfully submit that in light of the above amendments to independent Claim 20, and the following arguments, the above identified references would not have led one skilled in the art to the invention as set forth in Claim 21.

The Examiner states that "US '607 disclosed a substance delivery system to deliver substance to a target surface when it is deformed (abstract; col. 4, lines 46-54); such system comprises a deformable material (substrate) that holds substance in depressions and/or valleys (abstract; col. 4, lines 22-35). The above structure is used in lotion impregnated facial tissue, scented strips containing perfumes, medicinal patches, and condiment delivery to a surface (col. 18, lines 22-27)." However, the claims of the present invention recite a structurally different substance delivery system (wipe article) than that disclosed in US '607. Furthermore, the mode of deformation to deliver substances claimed herein is different than that in US '607. The following identifies the key differences between US '607 and the claims of the present invention:

(iii) Structural Differences:

The height of the depressions disclosed in US '607 is from 0.01 cm to 0.03 cm, i.e., 0.1 mm to 0.3 mm (col. 9, lines 17-18). The width of the depressions (that will be the base diameter as defined in Fig. 17 of US '607 and disclosed in col. 15, lines 51-53 is from 0.038 cm to 0.076 cm, i.e., 0.38 mm to 0.76 mm. [Note, the Examiner has incorrectly used instead of center-to-center spacing to calculate the width of the depressions instead of the correct base diameter figure]. The ratio of height (depth) to width will be from 0.26:1 till 0.39:1. Furthermore, US '607 discloses that a preferred width (base diameter) to height (depth) ratio of protrusions is at least 2:1, i.e., inversely, depth to width ratio of at most 1:2 (col. 15, lines 53-55).

US '607 also discloses that protrusion (depression) shape discourages the protrusions from folding over in a direction parallel to a plane of material (col. 8, lines 59-62) and a preferred width-to-depth ratio of at least 2:1 (inversely depth-to-width less than 1:2) will prevent fold over (col. 15, lines 53-55). Whereas, the micropocket shapes of the present invention will fold over in

a direction parallel to the plane of material under the preferred deformation disclosed in US '607 (i.e., compression perpendicular to the plane of substrate), as shown in Figs. 6 (a) to (c) and described on page 6, lines 27-29 of the present invention. Furthermore, the present invention claims micropockets having a depth-to-width ratio of at least (greater than) 1:2 (Claim 1) and between 0.7:1 and 2.8:1 (Claim 2). Thus, contrary to the Examiner's assertion, the depth-to-width ratio of the '607 Patent does not read on the instant claims.

Differences in Deformation Mode to Deliver Substances:

As disclosed US '607, the substance contained in the three dimensional protrusions is released to the target surface and delivered only after the structure is sufficiently deformed into a substantially two-dimensional structure by inverting and/or crushing or decreasing in height of protrusions along an axis which is substantially perpendicular to the plane of material (abstract; col. 5, lines 7-12; col. 8, lines 55-59; col. 15, lines 44-46; col. 17, lines 43-61; col. 18, lines 13-16). In comparison, in the present invention the substance is delivered from micropockets to the target surface under the action of shear forces substantially parallel to the plane of the substrate such that shear forces cause the walls of micropockets to substantially deform and release the substance to the target surface, i.e., without the substrate becoming substantially two-dimensional (see e.g., Figs. 5 (a) to (d); page 6, lines 19-25). Furthermore, the compression force substantially perpendicular the substrate (preferred deformation mode disclosed in US '607) causes the micropockets of the present invention to fold over and close the micropockets preventing the release of the substance to the target surface (Figs. 6 (a) to (c); Page 6, lines 27-29).

As per the reference, "PHYSICAL TESTING OF TEXTILES" by B. P. Saville, the technical definition of the shear force acting on a substantially planar substrate is a combination of an extension force acting along one diagonal in the plane of the substrate and a corresponding compression force acting along the other diagonal in the plane of the substrate (not perpendicular to the substrate). While a combination of tensile force in the plane of substrate and a compression force perpendicular to the plane of substrate is disclosed in US '607 to cause the depressions to deform in a direction substantially perpendicular to the plane of the substrate and expose the substance to the target surface (col. 5, lines 25-30), such mode of deformation is substantially different from the deformation mode due to shear forces disclosed in the present invention (page 6, lines 20-25) in view of the above-mentioned reference. Therefore, US '607 does not teach how the micropockets of the present invention will deliver the substances to the target surface upon contact.

In a sincere effort to expedite prosecution of the present invention, Applicants have expressly amended independent Claims 1, 20, and 22 to recite that when the substrate is subjected to a compression force perpendicular to the surface of the substrate, the walls of the micropockets will collapse and close, thereby preventing release of said substance. Clearly, the wipe article comprising a substrate with micropockets as recited in the amended claims is structurally different and also delivers substances by a different mode of deformation than the substrate disclosed in US '607.

PGUB '199 relates to a disposable shoe liner that is formed from a first substrate, a second substrate, and discrete regions of a functional material sandwiched therebetween. In particular, the first and second substrates are fused together at certain portions such that fused portions and unfused portions are formed. The unfused portions form pockets that contain the functional materials. The pockets contain, for example, activated carbon granules to provide comfort to the foot and to absorb odors exuded therefrom. The Examiner notes that PGUB '199 discloses the use of functional material in the form of liquid that include odor absorbent, fragrance and germicidal material. Applicants' acknowledge that the use odor absorbent, fragrance and germicidal material in shoe liners are known in the art. However, there is nothing in the prior art teaching or suggesting the use of these functional materials in a shoe liner containing the specific type of micropockets claimed herein

The Examiner goes on to state that it would have been obvious to one of ordinary skill in the art at the time of the invention to apply functional substance to a target surface by applying tensile force on the structure disclosed by '607 and use it as a shoe liner as disclosed in PGUB '199. Applicants respectfully disagree. First of all, as discussed in detail above, US '607 does not teach or suggest a wipe article comprising a substrate with micropockets as recited in amended Claim 20. Whereas, the shoe liner in PGUB '199 does not contain micropockets that are designed to release functional substances upon the application of a shear stress. Thus even if one were to combine the teachings of PGUB '199 with the substrates disclosed in US '607 as the Examiner suggests, the combination would fall short of Applicants' claimed invention.

Based on the foregoing, Applicants respectfully submit that Claim 21 is not obvious over US '607 in view of PGUB '199 and respectfully request that the Examiner's rejections under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

In light of the foregoing amendments to Claims 1-19, 20 and 22 it is submitted that all claims remaining in the present application -- namely, Claims 1-23 are now in form for allowance. Accordingly, it is respectfully submitted that the rejections under 35 U.S.C. §102, §103, and §112, be withdrawn, and the claims as amended be allowed.

Respectfully submitted,

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Version With Markings To Show Changes Made

IN THE CLAIMS:

Claims 1-20 and 22 have been amended as follows:

1. A wipe article comprising:
 - a. A substrate, said substrate having a plurality of micropockets, said micropockets having a length, a width, and a depth, wherein the ratio of said depth to said width is at least 1:2; and
 - b. at least one substance in said micropockets, said substance remaining in said micropockets until said substrate is subjected to a shear force while in contact with a target surface, said shear force causing walls of said micropockets to substantially deform, and release said substance to said target surface,
wherein when said substrate is subjected to a compression force perpendicular to the surface of said substrate, said walls of said micropockets collapse and close, preventing release of said substance.
2. (Amended) The wipe article [substrate] of claim 1, wherein ratio of said depth to said width of said micropockets is between about 0.7:1 and about 2.8:1.
3. (Amended) The wipe article [substrate] of claim 1, wherein:
 - a. said length of said micropockets is between about 0.1 mm and about 100 mm;
 - b. said width of said micropockets is between about 0.1 mm and about 10 mm; and
 - c. said depth of said micropockets is between about 0.05 mm and about 10 mm.
4. (Amended) The wipe article [substrate] of claim 1, wherein said substrate has from about 1 micropocket per cm² to about 100 micropockets per cm².
5. (Amended) The wipe article [substrate] of claim 1, wherein said substrate is a film substantially impervious to at least one substance contained in said micropockets of said substrate.
6. (Amended) The wipe article [substrate] of claim 1, wherein said substrate is a porous film substantially pervious to at least one said substance contained in said micropockets of said substrate.

7. (Amended) The wipe article [substrate] of claim 1, wherein said substrate is a nonwoven.
8. (Amended) The wipe article [substrate] of claim 1, wherein said substrate is elastomeric.
9. (Amended) The wipe article [substrate] of claim 1, wherein said substrate has at least two layers, wherein at least one of said layers has a plurality of said micropockets.
10. (Amended) The wipe article [substrate] of claim 9, wherein at least one said layer of said substrate is a film substantially impervious to said substance contained in said micropockets.
11. (Amended) The wipe article [substrate] of claim 9, wherein at least one said layer of said substrate is a porous film substantially pervious to at least one said substance.
12. (Amended) The wipe article [substrate] of claim 9, wherein at least one said layer of said substrate is a nonwoven.
13. (Amended) The wipe article [substrate] of claim 9, wherein at least one said layer of said substrate is elastomeric.
14. (Amended) The wipe article [film] of claim 5, wherein said film is comprised of a polymer selected from the group consisting of polyethylene, polypropylene, polyvinylalcohol, polyethylene-polypropylene copolymers, and mixtures thereof.
15. (Amended) The wipe article [porous film] of claim 6, wherein said film is a polymer selected from the group consisting of polyethylene, polypropylene, polyvinylalcohol, polyethylene-polypropylene copolymers, and mixtures thereof.
16. (Amended) The wipe article [substrate] of claim 1, wherein said substance is selected from the group consisting of cleansing agents, skin care agents, medicinal agents, [suncare agents, analgesic agents,] emollients, lubricants, colorants, preservatives, condiments, deodorants, [antiperspirants,] fragrances, adhesives, cooking oil for basting, conditioning agents, humectants, shoe care agents, and insect repellants, and mixtures thereof.

17. (Amended) The wipe article [substrate] of claim 1, where in said substance is a skin anti-wrinkle agent.
18. (Amended) The wipe article [substrate] of claim 16, wherein said substance is in a form selected from the group of a rigid gel, cream, [substance,] oil in water emulsion, water in oil emulsion, tonic, suspension, dispersion, wettable and redispersible solid.
19. (Amended) The wipe article [substrate] of claim 9, wherein said substrate is to be used as a facial wash cloth, wherein said substrate has at least two layers, the first layer of said substrate contains a cleansing substance, the second layer of said substrate contains a conditioning substance to be released after said cleansing substance in said first layer is released.
20. (Amended) A method of applying at least one substance to a target surface, said method comprising:
- providing a substrate having a plurality of micropockets containing said substance, said micropockets having a length, a width and a depth, wherein the ratio of said depth to said width is at least 1:2;
 - placing said substrate in contact with said target surface; and
 - applying shear forces along the surface of said substrate while said substrate is in contact with said target surface, said shear forces causing walls of said micropockets to substantially deform, and release said substance, to said target surface, wherein when said substrate is subjected to a compression force perpendicular to the surface of said substrate, said walls of said micropockets collapse and close, preventing release of said substance.
22. (Amended) A method of delivering a shear responsive film onto a target surface, said method comprising:
- providing a substrate having a plurality of micropockets containing a film forming material, said micropockets having a length, a width and a depth, wherein the ratio of said depth to said width is at least 1:2;
 - placing said substrate in contact with said target surface; and
 - applying shear forces along the surface of said substrate, said shear forces causing the walls of said micropockets to substantially deform and transfer said film forming material to said target surface in the form of a replica of said substrate,

wherein when said substrate is subjected to a compression force perpendicular to the surface of said substrate, said walls of said micropockets collapse and close, preventing release of said substance.